

INSECTICIDAL N-(HETEROARYLALKYL)ALKANEDIAMINE**DERIVATIVES**

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5 This application is a 371 of PCT/US04/40284 filed 12/02/2004 which
6 This application claims the benefit of U.S. Provisional Application
7 60/526,760, filed December 4, 2003, and U.S. Provisional Application 60/609,590,
8 filed September 14, 2004.

FIELD OF THE INVENTION

10 The present invention generally relates to pesticidal compounds and their use
11 in controlling insects and acarids. In particular, it pertains to compositions of
12 pesticidal N-(heteroarylalkyl)alkanediamine derivatives and agriculturally
13 acceptable salts thereof, and methods for their use in controlling insects and acarids.

BACKGROUND OF THE INVENTION

15 It is well known that insects in general can cause significant damage, not
16 only to crops grown in agriculture, but also, for example, to structures and turf
17 where the damage is caused by soil-borne insects, such as termites and white grubs.
18 Such damage may result in the loss of millions of dollars of value associated with a
19 given crop, turf or structures. Although there are many orders of insects that can
20 cause significant crop damage, insects, for example, of the suborder "Homoptera"
21 are of major importance. The suborder Homoptera includes, for example, aphids,
22 leafhoppers, cicadas, whiteflies, and mealybugs, to name a few. Homopterans have
23 piercing/sucking mouthparts, enabling them to feed by withdrawing sap from
24 vascular plants. Insect damage from homopterans is manifested in several different
25 ways, other than damage caused by direct feeding. For example, many species
26 excrete honeydew, a sticky waste product that adheres to plants upon which the
27 insect feeds and lives. Honeydew alone causes cosmetic injury to crop plants.
28 Sooty molds will often grow on honeydew, making food products or ornamental
29 plants look unappealing, thereby reducing their cosmetic and economic value. Some
30 homopterans have toxic saliva that is injected into plants while they are feeding.
The saliva can cause plant damage through disfigurement and in some instances
plant death. Homopterans can also vector disease-causing pathogens. Unlike direct